CLAIMS

1. A voice processing system characterized by
2 comprising:
3   a terminal which transmits input voice
4 information and outputs received information;
5   a voice processing unit which performs voice
6 processing on the basis of voice information from said
7 terminal; and
8   an information providing unit which receives a
9 voice processing result obtained by said voice
10 processing unit and transmits information reflecting the
11 voice processing result to said terminal,
12   wherein said terminal, said voice processing
13 unit, and said information providing unit share
14 processing identification information corresponding to a
15 series of processes performed by said voice processing
16 unit and said information providing unit on the basis of
17 the voice information.

2. A voice processing system according to
2 claim 1, characterized in that said voice processing
3 unit comprises voice processing executing means for
4 performing at least one of voice recognition processing,
5 interaction processing, and collation processing as the
6 voice processing.

3. A voice processing system according to
2 claim 1, characterized in that one of said information
3 providing unit and said voice processing unit comprises

4 identification information generating means for

5 generating the processing identification information.

6. 4.   A voice processing system according to

2 claim 3, characterized in that one of said information

3 providing unit and said voice processing unit further

4 comprises communication means for transmitting the

5 generated processing identification information to said

6 terminal.

    5.   A voice processing system according to

2 claim 4, characterized in that said terminal comprises

3 communication means for receiving the processing

4 identification information generated by one of said

5 information providing unit and said voice processing

6 unit and transmitting the received processing

7 identification information to the other of said

8 information providing unit and said voice processing

9 unit.

    6.   A voice processing system according to

2 claim 4, wherein said terminal comprises communication

3 means for receiving the processing identification

4 information generated by said identification information

5 generating means of said information providing unit and

6 transmitting the received processing identification

7 information to said voice processing unit together with

8 the input voice information.

    7.   A voice processing system according to

2 claim 1, characterized in that the processing

3 identification information is unique identification

4 information of said terminal.

8. A voice processing system according to

2 claim 7, characterized in that said terminal comprises

3 unique identification information output means

4 for outputting the unique identification information,

5 and

6 communication means for transmitting the

7 unique identification information from said unique

8 identification information means as the processing

9 identification information to said voice processing unit

10 and said information providing unit.

9. A voice processing system according to

2 claim 8, characterized in that said unique

3 identification information output means outputs, as the

4 unique identification information without any change,

5 terminal identification information held in advance by

6 said terminal.

10. A voice processing system according to

2 claim 8, characterized in that said unique

3 identification information output means comprises means

4 for generating and outputting the unique identification

5 information on the basis of terminal identification

6 information held in advance by said terminal.

11. A voice processing system according to

2 claim 1, characterized in that

3 said terminal comprises communication means

4   for transmitting the processing identification

5   information to said voice processing unit together with

6   the input voice information, and

7   said voice processing unit comprises

8   reception means for receiving the voice

9   information and the processing identification

10   information from said terminal,

11   voice processing executing means for executing

12   voice processing for the received voice information, and

13   transmission means for transmitting the

14   processing identification information to said

15   information providing unit upon containing the

16   information in a voice processing result obtained by

17   said voice processing executing means.

             12.   A voice processing system according to

2   claim 1, characterized in that said terminal comprises

3   communication means for transmitting a transmission

4   packet having the processing identification information

5   stored in a header portion to said voice processing

6   unit.

             13.   A voice processing system according to

2   claim 1, characterized in that

3   said information providing unit comprises

4   reception means for receiving, together with

5   the processing identification information, a voice

6   processing result obtained by said voice processing

7   unit,

8   information management means for preparing

9   resultant information reflecting the voice processing

10 result, in correspondence with the processing

11 identification information, and

12   transmission means for transmitting the

13 resultant information to said terminal, and

14   said terminal comprises output means for

15 outputting the resultant information from said

16 information providing unit.

        14. A voice processing system according to

2   claim 1, characterized in that

3   said information providing unit comprises

4   reception means for receiving, together with

5   the processing identification information, a voice

6   processing result obtained by said voice processing

7   unit,

8   information management means for preparing

9   content information reflecting the voice processing

10 result, in correspondence with the processing

11 identification information, and

12   transmission means for transmitting the

13 content information to said terminal, and

14   said terminal comprises output means for

15 outputting the content information from said information

16 providing unit.

        15. A voice processing system according to

2   claim 1, characterized in that said information

3 providing unit comprises

4 first reception means for receiving, together

5 with the processing identification information, a voice

6 processing result obtained by said voice processing

7 unit, and

8 information management means for placing

9 content information reflecting the voice processing

10 result in a place represented by URL (Uniform Resource

11 Locator) information containing the processing

12 identification information, and

13 first transmission for transmitting the

14 content information corresponding to the URL information

15 designated by said terminal to said terminal.

16. A voice processing system according to

2 claim 15; characterized in that said information

3 providing unit further comprises

4 second transmission means for transmitting

5 recognition resultant information corresponding to input

6 voice which reflects the voice processing result to said

7 terminal,

8 third transmission means for transmitting, to

9 said terminal, the content information corresponding to

10 the URL information designated by said terminal which

11 has received the recognition resultant information.

17. A voice processing system according to

2 claim 1, characterized in that the voice information is

3 at least one of digitalized voice data, compressed voice

4   data, and a feature vector.

18. A voice processing system according to
2   claim 1, characterized in that
3   said terminal, said voice processing unit, and
4   said information providing unit are respectively a
5   client, a voice processing server, and an information
6   providing server which are communication-connected to
7   each other,
8   said client comprises
9   first transmission means for transmitting a
10   service request signal to said information providing
11   server when a service request is issued,
12   reception means for receiving the processing
13   identification information transmitted from said
14   information providing server as a response to the
15   service request signal, and
16   second transmission means for transmitting the
17   input voice information to said voice processing server
18   together with the processing identification information,
19   said voice processing server comprises
20   reception means for receiving the voice
21   information and the processing identification
22   information from said client,
23   voice processing executing means for executing
24   voice processing for the received voice information, and
25   transmission means for transmitting a voice
26   processing result obtained by said voice processing

27   executing means and the processing identification

28   information to said information providing server, and

29   said information providing server comprises

30   reception means for receiving the service

31   request signal from said client and the voice processing

32   result and the processing identification information

33   from said voice processing server,

34   identification information generating means

35   for generating the processing identification information

36   when the service request signal is received,

37   information management means for generating

38   information to be presented to said client on the basis

39   of the processing identification information generated

40   by said identification information generating means, and

41   generating information reflecting the voice processing

42   result in correspondence with the processing

43   identification information from said voice processing

44   server, and

45   transmission means for transmitting the

46   generated processing identification information and the

47   information to said client.

        19. A voice processing system according to

 2   claim 1, characterized in that

 3   said terminal, said voice processing unit, and

 4   said information providing unit are respectively a

 5   client, a voice processing server, and an information

 6   providing server which are communication-connected to

7   each other,

8   said client comprises

9   unique identification information output means

10 for outputting unique identification information of said

11 client as the processing identification information,

12   first transmission means for transmitting a

13 service request signal and the processing identification

14 information to said information providing server when a

15 service request is issued, and

16   second transmission means for transmitting the

17 input voice information to said voice processing server

18 together with the processing identification information,

19   said voice processing server comprises

20   reception means for receiving the voice

21 information and the processing identification

22 information from said client,

23   voice processing executing means for executing

24 voice processing for the received voice information, and

25   transmission means for transmitting a voice

26 processing result obtained by said voice processing

27 means and the processing identification information to

28 said information providing server, and

29   said information providing server comprises

30   reception means for receiving the service

31 request signal and the processing identification

32 information from said client and the voice processing

33 result and the processing identification information

34   from said voice processing server,

35   information management means for generating

36   information to be presented to said client on the basis

37   of the processing identification information from said

38   client, and generating information reflecting the voice

39   processing result in correspondence with the processing

40   identification information from said voice processing

41   server, and

42   transmission means for transmitting the

43   information generated by said information management

44   means to said client.

        20.   A voice processing system according to

2   claim 19, characterized in that said unique

3   identification information output means uses, as the

4   unique identification information, terminal

5   identification information held in advance by said

6   client.

        21.   A voice processing system according to

2   claim 19, characterized in that said unique

3   identification information output means comprises means

4   for generating the unique identification information on

5   the basis of terminal identification information held in

6   advance by said client.

        22.   A voice processing system according to

2   claim 1, characterized in that

3   said terminal, said voice processing unit, and

4   said information providing unit are respectively a

5   client, a voice processing server, and an information

6   providing server which are communication-connected to

7   each other,

8   said client comprises

9   first transmission means for transmitting a

10   service request signal to said information providing

11   server when a service request is issued,

12   second transmission means for transmitting a

13   voice processing request signal to said voice processing

14   server,

15   reception means for receiving the processing

16   identification information transmitted from said voice

17   processing server as a response to the voice processing

18   request signal,

19   third transmission means for transmitting the

20   received processing identification information to said

21   information providing server, and

22   fourth transmission means for transmitting the

23   input voice information to said voice processing server

24   together with the processing identification information,

25   said voice processing server comprises

26   first reception means for receiving the voice

27   processing request signal from said client,

28   identification information generating means

29   for generating the processing identification information

30   when the voice processing request signal is received,

31   first transmission means for transmitting the

- 52 -

32   generated processing identification information to said

33   client,

34   second reception means for receiving the voice

35   information and the processing identification

36   information from said client,

37   voice processing executing means for executing

38   voice processing for the voice information from said

39   client, and

40   transmission means for transmitting a voice

41   processing result obtained by said voice processing

42   executing means and the processing identification

43   information from said client to said information

44   providing server, and

45   said information providing server comprises

46   reception means for receiving the service

47   request signal and the processing identification

48   information from said client and the voice processing

49   result and the processing identification information

50   from said voice processing server,

51   information management means for generating

52   information to be presented to said client on the basis

53   of the service request signal from said client and

54   generating information reflecting the voice processing

55   result in correspondence with the processing

56   identification information from said voice processing

57   server, and

58   transmission means for transmitting the

59 information generated by said information management

60 means to said client.

23. A voice processing method characterized

2   by comprising the steps of:

3   causing a terminal to transmit input voice

4   information to a voice processing unit;

5   causing the voice processing unit to perform

6   voice processing for the voice information from the

7   terminal;

8   transmitting a voice processing result to an

9   information providing unit; and

10   causing the information providing unit to

11 prepare information reflecting the voice processing

12 result obtained by the voice processing unit, and the

13 step of transmitting the prepared information to the

14 terminal,

15   wherein the terminal, the voice processing

16 unit, and the information providing unit share

17 processing identification information corresponding to a

18 series of processes performed by the voice processing

19 unit and the information providing unit on the basis of

20 the voice information.

24. A voice processing method according to

2   claim 23, characterized in that

3   the terminal, the voice processing unit, and

4   the information providing unit are respectively a

5   client, a voice processing server, and an information

6   providing server which are communication-connected to

7   each other, and

8   the method comprises the steps of

9   causing the client to transmit a service

10   request signal to the information providing server,

11   causing the information providing server to

12   generate the processing identification information when

13   receiving the service request signal, generating

14   information to be presented to the client on the basis

15   of the processing identification information, and

16   transmitting the generated processing identification

17   information and the information to the client,

18   causing the client to transmit the input voice

19   information to the voice processing server together with

20   the processing identification information from the

21   information providing server,

22   causing the voice processing server to perform

23   voice processing for the voice information from the

24   client, and transmitting a voice processing result and

25   the processing identification information from the

26   client to the information providing server, and

27   causing the information providing server to

28   prepare, in correspondence with the processing

29   identification information from the voice processing

30   server, information reflecting the voice processing

31   result obtained by the voice processing server, and

32   transmitting the prepared information to the terminal.

25. A voice processing method according to claim 23, characterized in that

the terminal, the voice processing unit, and the information providing unit are respectively a client, a voice processing server, and an information providing server which are communication-connected to each other, and

the method comprises the steps of

causing the client to transmit a service request signal and the processing identification information to the information providing server,

causing the information providing server to generate information to be presented to the client on the basis of the processing identification information when receiving the service request signal and the processing identification information, and transmitting the generated information to the client,

causing the client to transmit the input voice information to the voice processing server together with the processing identification information after receiving the information from the information providing server,

causing the voice processing server to perform voice processing for the voice information from the client, and transmitting a voice processing result and the processing identification information from the client to the information providing server, and

28   causing the information providing server to

29   prepare, in correspondence with the processing

30   identification information from the voice processing

31   server, information reflecting the voice processing

32   result obtained by the voice processing server, and

33   transmitting the prepared information to the terminal.

          26.   A voice processing method according to

2   claim 25, characterized by further comprising the step

3   of causing the client to output unique identification

4   information of the client,

5   wherein the step of causing the client to

6   transmit the processing identification information

7   comprises the step of transmitting the unique

8   identification information of the client as the

9   processing identification information.

          27.   A voice processing method according to

2   claim 26, characterized in that the step of outputting

3   comprises the step of using terminal identification

4   information held in advance by the client as the unique

5   identification information.

          28.   A voice processing method according to

2   claim 26, characterized in that the step of outputting

3   comprises the step of generating the unique

4   identification information on the basis of terminal

5   identification information held in advance by the

6   client.

          29.   A voice processing method according to

2 claim 23, characterized in that

3   the terminal, the voice processing unit, and

4 the information providing unit are respectively a

5 client, a voice processing server, and an information

6 providing server which are communication-connected to

7 each other, and

8   the method comprises the steps of

9   causing the client to transmit a service

10 request signal to the information providing server,

11   causing the information providing server to

12 generate information to be presented to the client when

13 receiving the service request signal, and transmitting

14 the generated information to the client,

15   causing the client to transmit a voice

16 processing request signal to the voice processing

17 server,

18   causing the voice processing server to

19 generate the processing identification information when

20 receiving the voice processing request signal, and

21 transmitting the processing identification information

22 to the client,

23   causing the client to receive the processing

24 identification information from the voice processing

25 server and transmit the processing identification

26 information to the information providing server, and

27 transmitting the input voice information to the voice

28 processing server together with the processing

29 identification information,

30   causing the voice processing server to perform

31 voice processing for the voice information from the

32 client, and transmitting a voice processing result and

33 the processing identification information from the

34 client to the information providing server, and

35   causing the information providing server to

36 prepare, in correspondence with the processing

37 identification information from the voice processing

38 server, information reflecting the voice processing

39 result obtained by the voice processing server, and

40 transmitting the prepared information to the terminal.

    30.   An information providing server unit

 2 characterized by comprising:

 3   first reception means for receiving a service

 4 request signal from a client;

 5   identification information generating means

 6 for generating processing identification information

 7 corresponding to a series of processes performed on the

 8 basis of voice information from said client when the

 9 service request signal is received;

10   means for generating first information to be

11 presented to said client on the basis of the processing

12 identification information;

13   first transmission means for transmitting the

14 processing identification information and the first

15 information to said client;

16   second reception means for receiving a voice

17 processing result and the processing identification

18 information from a voice processing server which

19 performs voice processing upon receiving the voice

20 signal and the processing identification information

21 from said client;

22   means for generating second information

23 reflecting the voice processing result in correspondence

24 with the processing identification information from the

25 voice processing server; and

26   second transmission means for transmitting the

27 second information to said client.

31.   A client unit characterized by

2 comprising:

3   unique identification information output means

4 for outputting unique identification information of the

5 client unit as processing identification information

6 corresponding to a series of processes performed by a

7 voice processing server which performs voice processing

8 for voice information from the client unit and an

9 information providing server which transmits information

10 reflecting a voice processing result obtained by said

11 voice processing server to the client unit;

12   first transmission means for transmitting a

13 service request signal and the processing identification

14 information to said information providing server when a

15 service request is issued; and

16   second transmission means for transmitting the

17 input voice information to said voice processing server

18 together with the processing identification information.

        32. A client unit according to claim 31,

2 characterized in that said unique identification

3 information output means uses, as the unique

4 identification information without any change, terminal

5 identification information held in advance by the client

6 unit.

        33. A client unit according to claim 31,

2 characterized in that said unique identification

3 information output means comprises means for generating

4 the unique identification information on the basis of

5 terminal identification information held in advance by

6 the client unit.

        34. A voice processing server unit

2 characterized by comprising:

3   first reception means for receiving a voice

4 processing request signal from a client;

5   identification information generating means

6 for generating processing identification information

7 corresponding to a series of processes performed on the

8 basis of voice information from said client when the

9 voice processing request signal is received;

10   first transmission means for transmitting the

11 processing identification information to said client;

12   second reception means for receiving the voice

13 information and the processing identification

14 information from said client;

15   voice processing executing means for

16 performing voice processing for the voice information

17 from said client; and

18   transmission means for transmitting, to an

19 information providing server, a voice processing result

20 obtained by said voice processing executing means and

21 the processing identification information from said

22 client, while generating information reflecting the

23 voice processing result in correspondence with the

24 processing identification information.

       35.   A program which causes a computer serving

2 as an information providing server unit to implement:

3   a first reception function of receiving a

4 service request signal from a client;

5   an identification information generating

6 function of generating processing identification

7 information corresponding to a series of processes

8 performed on the basis of voice information from the

9 client when the service request signal is received;

10   a function of generating first information to

11 be presented to the client on the basis of the

12 processing identification information;

13   a first transmission function of transmitting

14 the processing identification information and the first

15 information to the client;

16   a second reception function of receiving the

17   voice signal and the processing identification

18   information from the client and receiving a voice

19   processing result and the processing identification

20   information from a voice processing server which

21   performs voice processing;

22   a function of generating second information

23   reflecting the voice processing result in correspondence

24   with the processing identification information from the

25   voice processing server; and

26   a second transmission function of transmitting

27   the second information to the client.

          36.   A program which causes a computer serving

2   as a client unit to implement:

3   a unique identification information output

4   function of outputting unique identification information

5   of the client unit as processing identification

6   information corresponding to a series of processes

7   performed by a voice processing server which performs

8   voice processing for voice information from the client

9   unit and an information providing server which transmits

10   information reflecting a voice processing result to the

11   client unit;

12   a first transmission function of transmitting

13   a service request signal and the processing

14   identification information to the information providing

15   server when a service request is issued; and

16   a second transmission function of transmitting

17 the input voice information and the processing

18 identification information to the voice processing

19 server.

     37. A program according to claim 36, wherein

2 as the unique identification information output

3 function, the program implements a function of using

4 terminal identification information held in advance by

5 the client unit as the unique identification information

6 without any change.

     38. A program according to claim 36, wherein

2 as the unique identification information output

3 function, the program implements a function of

4 generating the unique identification information on the

5 basis of terminal identification information held in

6 advance by the client unit.

     39. A program which causes a computer serving

2 as a voice processing server unit to implement:

3   a first reception function of receiving a

4 voice processing request signal from a client;

5   an identification information generating

6 function of generating processing identification

7 information corresponding to a series of processes

8 performed on the basis of voice information from the

9 client when the voice processing request signal is

10 received;

11   a first transmission function of transmitting

12   the processing identification information to the client;

13   a second reception function of receiving the

14   voice information and the processing identification

15   information from the client;

16   a voice processing execution function of

17   executing voice processing for the voice information

18   from the client; and

19   a transmission function of transmitting, to an

20   information providing server, a voice processing result

21   obtained by the voice processing execution function and

22   the processing identification information from the

23   client, while generating information reflecting the

24   voice processing result in correspondence with the

25   processing identification information.

     40.   An information processing system

 2   characterized by comprising a client and a plurality of

 3   servers,

 4   wherein a series of processes (A), (B), and

 5   (C):

 6   (A) in association with processing executed by

 7   at least one of said plurality of servers on the basis

 8   of a request from said client, processing is performed

 9   by another server in accordance with the request,

10   (B) exchanging a processing result between

11   said another server and said one server, and

12   (C) causing said one server to generate

13   response information in response to the request on the

14 basis of the processing result

15 are managed by common processing identification

16 information shared by said client, said one server, and

17 said another server.

41. An information processing system

2 according to claim 40, characterized in that the

3 processing identification information is generated by

4 one of said one server and said another server.

42. An information processing system

2 according to claim 40, characterized in that as the

3 processing identification information, unique

4 identification information of said client is used.

43. An information processing system

2 according to claim 40, characterized in that

3 said one server comprises a Web server, and

4 said another server comprises a voice processing server

5 which performs voice processing, and

6 voice uttered by a user which is input to said

7 client is managed by the processing identification

8 information.